

PSYCHE

VOL. XLIII

MARCH, 1936

No. 1

TWO NEW THYSANOPTERA FROM THE UNITED STATES

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The types of the two new species described below are in the author's collection.

***Tæniothrips vaccinophilus* sp. nov. (Fig. 1)**

Female (macropterous). — Length about 0.88 mm. (distended, 1.01 mm.). Color clear pale yellow, with tip of abdomen and sides of thorax just perceptively darker; antennæ concolorous with paler portions of body in segments I and II, III similarly pale at base, lightly shaded with gray distally, IV pale in basal third or fourth, more darkly shaded with gray beyond but somewhat paler in apical portion, V somewhat darker than IV, more briefly pale at base and with the short pedicel gray, VI about concolorous with darker portions of V, somewhat paler basally, VII and VIII uniform gray but paler than VI; wings of fore pair nearly colorless in basal fourth, yellowish beyond, the anal area (scale), a narrow line along posterior margin in distal three-fourths, and a broader patch along anterior margin of second fourth, light gray; ocellar pigmentation bright red.

Head about two-thirds as long as greatest postocular width, distinctly broader across eyes; cheeks smooth, narrowing only slightly to eyes, roundly converging to the distinctly narrower base, thus not swollen; occiput with about five faint transverse lines of sculpture, of which the anterior is the most distinct; vertex slightly elevated in the ocellar area, distinctly excavated between it and insertion of antennæ; frontal costa with an exceedingly minute V-shaped notch; interocellar setæ short and pale, about 13 μ in length and somewhat shorter than postocellars, a similar but more minute pair of setæ near inner margins of eyes

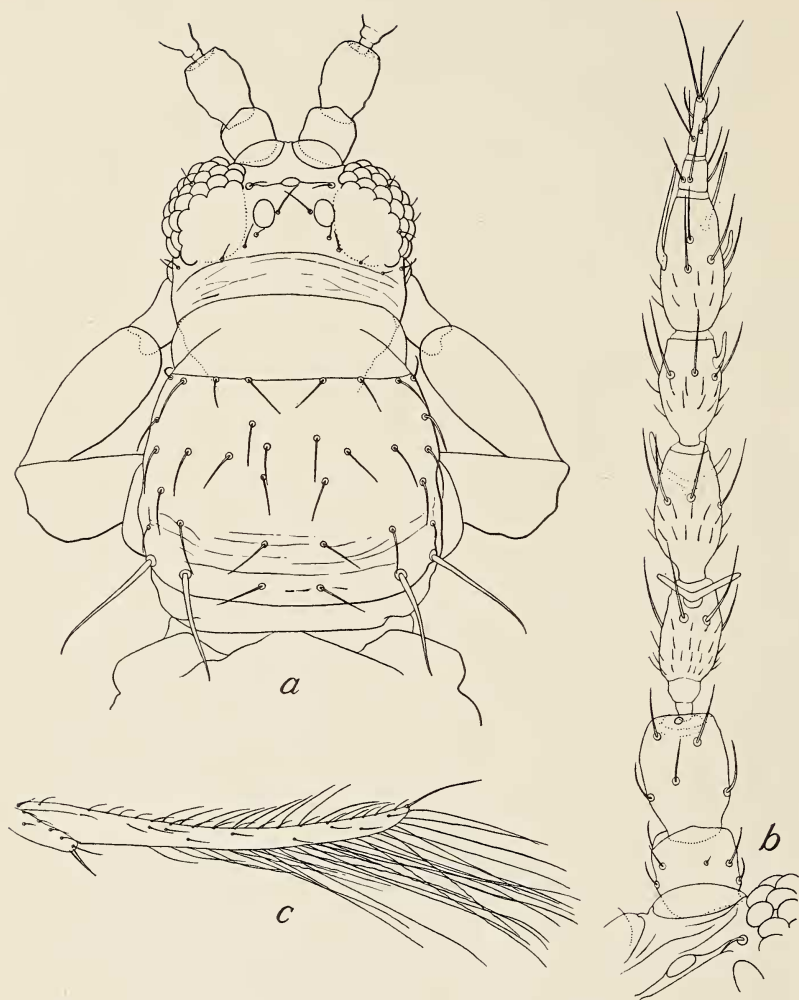


Fig. 1. *Tæniothrips vaccinophilus* sp. nov., ♀, holotype.
a, head and prothorax; b, right antenna; c, right fore wing.

directly laterad of median ocellus; postocular and genal setæ minute and pale, two pairs of the former, three pairs of the latter. *Eyes* rather large and prominent, somewhat protruding, two-thirds as long as head and 0.8 as wide as their interval. *Ocelli* subequal in size, about 13μ in diameter, posterior pair about 18μ apart and 10μ from median ocellus, which is directed forward and overhanging. *Antennæ* three times as long as head, rather stout, segments III and IV with the usual forked trichomes short, IV and V with pedicel short. *Mouth-cone* about attaining posterior margin of prosternum (maxillary palpi not clearly visible in the type material).

Prothorax about 1.4 times as long as head and about 1.4 times as wide as long; pronotum almost smooth, with a few faint transverse lines posteriorly, of which one between the inner pair of major setæ is most distinct; all setæ pale yellow, the outer pair at posterior angles 50μ , inner 44μ , between the latter and midway between the heavy transverse line of sculpture and the posterior margin only *one pair of minor setæ*, these about 24μ apart and subequal to interocellars and a number of other setæ scattered over pronotum. Fore wings nearly 11 times as long as width just beyond scale, recurved at tip; setæ pale in color, anterior vein with a sub-basal group of three arising opposite distal half of scale, followed by a second group of three in the dark portion of wing and by three more in distal half of wing, the last two in the series closer together; posterior vein with three nearly equidistant setæ in distal half of wing; costal margin with about 16 setæ.

Abdomen of normal form, about 1.24 times as wide as pterothorax, nearly free of sculpture, *posterior margin of tergum VIII without comb*; tergum X not divided along median line; dorsal setæ on IX and X about 68μ long, those on IX much stouter.

Measurements of holotype (♀): Length about 0.88 mm. (distended, 1.01 mm.; head, length 0.065 mm., width across eyes 0.103 mm., width across cheeks 0.099 mm., width at base 0.093 mm.; eyes, length 0.044 mm., width 0.032 mm., interval 0.040 mm.; prothorax, median length of pronotum 0.092 mm., width 0.130 mm.; pterothorax, width 0.164 mm.; fore wings, length 0.423 mm., width just beyond scale 0.039

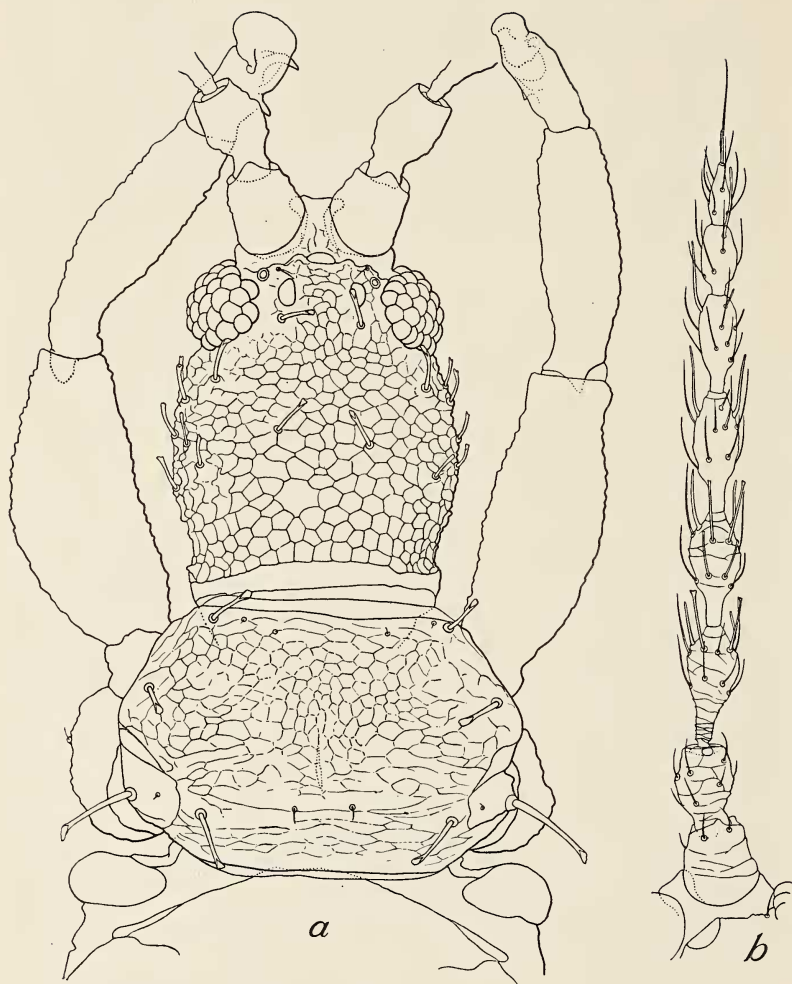


Fig. 2. *Eurythrips sculpturus* sp. nov., ♀. *a*, head and prothorax, paratype; *b*, right antenna, holotype.

mm., at middle 0.027 mm.; abdomen, greatest width 0.204 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length (μ):	20	30	34	31	27	33	8	15
Width (μ):	22	23	17	17	17	17	7	5

Total length of antenna 0.198 mm.

Described from 9 females taken by the author on a species of Blueberry (*Vaccinium sp.*), at Canandaigua Lake, New York, May 27, 29, and 30, 1934 [Hood Nos. 567 and 568].

The assignment of this species to the heterogeneous collection of forms now reposing in *Tæniothrips* does not thoroughly satisfy me; yet I dislike to erect a new genus for it until a thorough study has been made of its relatives. The number of segments in the maxillary palpus cannot be determined with certainty from my material, though I strongly suspect that there are but two instead of the conventional three.

It is certainly a most distinct species. The small size, pale color, minute frontal notch, short abdominal setæ, and the absence of a comb from the eighth abdominal tergum are all important characters in its recognition; but the presence of only two minor setæ on the posterior margin of the pronotum, instead of the usual six or eight, is distinctive.

***Eurythrips sculpturus* sp. nov. (Fig. 2)**

Female (brachypterous). — Length about 1.4 mm. Color of head, thorax, and legs bright yellow, all somewhat shaded with brown at sides, pterothorax darkened along anterior margin; abdomen brown, terga III-VIII each with the sub-basal line darker and with a dark gray quadrate blotch occupying the basal half of the median fourth beyond the line, the tube blackish brown and much darker than rest of abdomen; pigmentation in fat-body maroon red, present in the ocellar region, in sides of head at base, sparingly in prothorax, and abundantly along sides of pterothorax and abdomen and in abdominal segment II, entirely wanting in tube and all appendages; antennæ about concolorous with head in segment I, II darker, especially at sides, III yellow, shaded with gray in expanded portion, especially at sides,

IV-VI with pedicels grayish yellow and the swollen distal portions gray-brown to blackish brown and successively darker, remainder of antennæ nearly or quite blackish brown and concolorous with tube, the pedicel of VII somewhat paler.

Head about 1.36 times as long as greatest width, which is at middle of cheeks; the latter decidedly rounded to near eyes, sharply constricted just behind eyes, and converging in basal third, with a somewhat wider and distinct basal collar; at this level the head is only slightly broader than at the postocular constriction; width across eyes about 0.9 the greatest width across cheeks; the latter roughened as seen from above because of rather heavy lines of reticulation which form distinct polygons over the whole surface of head, and with six pairs of pale, curved, expanded setæ about 18μ in length; postocular setæ expanded and curved at tip, 27μ long; a slenderer but otherwise similar pair of occipital setæ, 27μ long and 50μ apart, situated about midway between postoculars and base of head; vertex and occiput elevated, the former somewhat excavated in front for the reception of the forwardly-directed median ocellus, with a pair of strong postocellar setæ which are similar to occipitals, and a slender pointed pair directly between the vertical pores and the median ocellus. *Eyes* rounded, strongly protruding, coarsely faceted, only 0.22 as long as head, their length distinctly greater than their width, which is approximately half their interval. *Ocelli* subequal, posterior pair much farther apart than their distance from anterior ocellus, their diameter (15μ) about half their interval; median ocellus with its posterior margin in the same transverse line as anterior margin of eyes. *Antennæ* about twice as long as head, the four basal segments marked with weak lines of reticulation which are most distinct on II; III-VII subclaviform, the pedicels of about equal width but successively shorter on IV-VII, VIII narrowed at base; sensecones long and slender, disposed on inner (and outer) surfaces of segments as follows: III 1 (1), IV 1 (1), V 1 (1^{+1}), VI 1 (1^{+1}); setæ long and slender, the major dorsal ones on II-VI knobbed. *Mouth-cone* short and broadly rounded, about attaining middle of prosternum.

Prothorax along median line of pronotum about two-

thirds as long as head, and (inclusive of coxæ) about 1.8 times as wide as long, with a short vestigial internal median thickening and a nearly straight thickening across posterior fourth, between posterior marginal setæ, this line bearing a pair of minute setæ (30μ apart) at middle; most of dorsal surface faintly subreticulate; epimeron not or only slightly fused with pronotum; anterior marginal setæ very minute, the others long, dilated and obliquely truncate at tip, the epimeral 46μ and longest, the others $32-34\mu$, coxals dilated apically but minute (13μ). *Pterothorax* slightly wider than prothorax; mesonotum with faint anastomosing lines over whole surface, these generally forming transversely elongate areas; metanotum polygonally subreticulate. *Legs* normal, fore tarsi with a small slender tooth; all femora and tibiæ distinctly reticulate and thus roughened in appearance. *Wings* short and pad-like, not attaining base of abdomen, fore pair with a single seta comparable in size and structure with posterior marginals.

Adomen large and heavy, about 1.6 times as wide as prothorax across coxæ, polygonally subreticulate in terga I-IX, except median portion of the last, distal portion of II-IX, and basal to the dark line across III-VIII; reticulation of I somewhat coarser than that of metanotum or of the other terga, the lines at sides of II and across middle of other terga minutely asperate; all major setæ at sides of segments I-VIII similar in form to postoculars and prothoracics, i.e., moderately stout, expanded and obliquely truncate apically, this giving them a somewhat golf-club-like form when seen from the proper direction, the lateral setæ on VII 60μ , on IX 107μ , dorsals on IX (76μ) scarcely hooked, terminal setæ pointed, 77μ .

Measurements (mostly of paratype,* ♀): Length about 1.3 mm. (fully distended, 1.4 mm.); head, length 0.213 mm., width across eyes 0.140 mm., width at posterior margin of eyes 0.125 mm., width at middle of cheeks 0.157 mm., width near base 0.130 mm.; eyes, length 0.047 mm., width 0.037 mm., interval 0.070 mm.; ocelli, diameter 0.015 mm., inter-

*In order that the coloration of the holotype might be preserved, it was deemed better to macerate the topotypic paratype in NaOH and to measure it. Accurate measurements are possible only in specimens so treated and then mounted to float free in balsam, without cover-glass pressure.

val between posterior ocelli 0.030 mm., distance between anterior and posterior 0.018 mm.; prothorax, median length of pronotum 0.142 mm., width (inclusive of coxæ) 0.253 mm.; pterothorax, greatest width 0.266 mm.; abdomen, greatest width (at segment III) 0.415 mm.; tube, length 0.165 mm. (in holotype 0.139 mm.), width at base 0.071 mm. (holotype, 0.063 mm.), at apex 0.027 mm. (holotype, 0.027 mm.).

Antennal segments:	1	2	3	4	5	6	7	8
Length (μ):	43	55	67	63	70	55	40	41
Width (μ):	41	34	31	29	27	24	20	13
Total length of antenna 0.434 mm.								

Male (brachypterous).—Length about 1.0 mm. (partially distended 1.11 mm.). Color and structure essentially as in female, but with the abdomen, particularly segment IX, paler, this being nearly yellow and darkened at sides with brown; transverse chitinous line near posterior fourth of pronotum heavier and darker, elevated, somewhat overhanging posteriorly, weaker between the two setæ at middle; lateral seta on segment IX of abdomen short (32 μ).

Measurements of allotype (δ): Length 1.0 mm.; head, length 0.151 mm., width across eyes 0.110 mm., width at posterior margin of eyes 0.099 mm., width at middle of cheeks 0.125 mm., width near base 0.114 mm.; eyes, length 0.033 mm., width 0.024 mm., interval 0.062 mm.; postocular setæ, length 0.027 mm.; prothorax, median length of pronotum 0.090 mm., width (inclusive of coxæ) 0.200 mm.; anterior lateral setæ, length 0.020 mm., midlaterals 0.033 mm., epimerals 0.036 mm., posterior marginals 0.034 mm.; pterothorax, greatest width 0.196 mm.; abdomen, greatest width (at segment III) 0.249 mm.; tube, length 0.099 mm., width at base 0.049 mm., at apex 0.023 mm.

Antennal segments:	1	2	3	4	5	6	7	8
Length (μ):	37	43	52	48	53	43	32	34
Width (μ):	33	28	26	25	23	20	18	12
Total length of antenna 0.342 mm.								

Described from three females and three males, taken by Dr. J. W. Folsom, at Tallulah, Louisiana, April 2 (1 ♀, paratype), May 11 (1 ♀, holotype, and 1 ♂, allotype, Hood No. 566), and October 4, 1934, "in humus".

It is not difficult to distinguish this interesting little spe-

cies from its congeners. The distinct dorsal reticulation, the oblique truncation of the dilated tips of the stout setæ, and the transverse pronotal thickening are all peculiar to it. It bridges beautifully the gap which has previously existed between the group comprising *Sagenothrips*, *Terthrothrips*, *Glyptothrips* (and possibly one or two other genera) and that portion of the *Trichothrips* group which culminates in *Malacothrips* and *Eurythrips*. On the basis of the definition alone of *Sagenothrips* it would seem more properly assignable to that genus; but I find little excepting sculpture to exclude it from the older genus *Eurythrips*. Furthermore, in the series of *Eurythrips* before me, a complete transition is observable in sculpture from those species which are nearly glabrous above to such species as the present one, in which the dorsal anastomosing lines take on a polygonal disposition and become pronouncedly elevated. Differences in sculpture which are of degree rather than of kind are seemingly never of generic, and certainly never of tribal, value in the Thysanoptera. Our classificatory scheme of the group contains many super-generic terms which have been proposed as the result of an eager and premature search for differences, untempered by an equal assiduity in a search for similarities.